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**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON
PORTLAND DIVISION**

**NORTHWEST ENVIRONMENTAL
DEFENSE CENTER, WILDEARTH
GUARDIANS, and NATIVE FISH
SOCIETY,**

Plaintiffs,

v.

**U.S. ARMY CORPS OF ENGINEERS
and NATIONAL MARINE
FISHERIES SERVICE,**

Defendants,

and

CITY OF SALEM and MARION COUNTY,

Defendant-Intervenors,

Case No. 3:18-cv-00437-JR

**REPLY IN SUPPORT OF
MOTION FOR PRELIMINARY
INJUNCTION**

**Oral Argument set for
10:00 a.m., April 4, 2019**

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INTRODUCTION

Federal Defendants’ response to Plaintiffs’ preliminary injunction motion is emblematic of how Defendant U.S. Army Corps of Engineers (“Corps”) has treated its responsibility to protect salmon and steelhead throughout the Columbia and Willamette basins. Rather than making changes to dam operations that would immediately benefit the species, the Corps resists such changes by claiming that it needs to undertake years of further analysis—until this Court has ordered it to take immediate actions. The Court should order such actions now to reduce the ongoing and continuous harm from operation of the Willamette Project to threatened salmon and steelhead, as it has with the Columbia River dams, because waiting for some future, speculative actions could well be too late for these declining species.

Federal Defendants do not dispute that the impacts to juvenile fish trying to migrate downstream past the dams is the most significant harm caused by the Willamette Project, and these fish will not survive and recover without significant improvement to downstream passage. The 2008 Biological Opinion for the Willamette Project acknowledged that harm and included short-term and long-term passage measures the Corps had to implement to avoid jeopardizing the species’ continued existence. The Corps, however, has failed to implement even the short-term measures at most of the Project dams. Plaintiffs’ preliminary injunction request is aimed at forcing the Corps to undertake the very measures it was supposed to complete years ago, and which expert agencies National Marine Fisheries Service (“NMFS”) and Oregon Department of Fish and Wildlife (“ODFW”) have supported.

Contrary to Federal Defendants’ assertions, the Corps has legal authority to conduct the measures proposed by Plaintiffs, and those measures are likely to benefit Upper Willamette River salmon and steelhead. Notably, Federal Defendants have not provided a single declaration

from a biologist at NMFS who directly worked on the Willamette Project to refute anything in Plaintiffs’ brief or expert declarations, nor have they claimed the measures are infeasible to conduct. Instead, they rely on a declaration from the Corps’ biologist that makes incorrect and flawed assumptions about the success of Plaintiffs’ proposed measures and argues, as expected, for more delay of actions while the agency spends years on further analysis. But *any* delay of improved fish passage ensures continued jeopardy and irreparable harm to these species, which is incompatible with the Corps’ substantive duties under the Endangered Species Act (“ESA”). Thus, an order granting Plaintiffs’ preliminary injunction motion is warranted.

ARGUMENT

I. Defendants’ Minimal Response on the Merits Highlights Plaintiffs’ Likelihood of Success on their Legal Claims.

Federal Defendants devote less than five pages at the end of their 35-page brief to the merits of Plaintiffs’ legal claims. Fed. Def. Br. at 31-35 (ECF No. 64). Tellingly, they ignored the key cases Plaintiffs cited to support their claims. Federal Defendants’ weak response fails to undercut Plaintiffs’ legal claims.

A. Reinitiation of Consultation Claim

Federal Defendants argue that Plaintiffs’ reinitiation of consultation claim is moot, ignoring Plaintiffs’ explanation in their opening brief that the claim is not moot based upon the reasoning in *Hoopa Valley Tribe v. National Marine Fisheries Service*, 230 F. Supp. 3d 1106 (N.D. Cal. 2017). Fed. Def. Br. at 31-32; Pl. Br. at 24-26 (ECF No. 36). There, the court held that delaying reinitiation of consultation for two years caused increased harm to the species and was a substantial procedural violation of the ESA, which could be remedied by an injunction that alleviated the harm to the species. *Hoopa Valley*, 230 F. Supp. 3d at 1131-35, 1146. The court noted that the impacts to the fish in those two years were greater than what the Biological

Opinion had considered, which undermined the core conclusions of NMFS’s no-jeopardy determination. *Id.* at 1133. Because the plaintiffs sought injunctive relief asking for additional water flows to protect the listed fish, and such relief could remedy the additional harm to the fish caused by the unlawful delay in reinitiation, the claim was not moot. *Id.* at 1132.

Hoopa Valley’s reasoning stems from well-established Ninth Circuit law that “a case is moot only where *no* effective relief for the alleged violation can be given.” *Neighbors of Cuddy Mtn. v. Alexander*, 303 F.3d 1059, 1065 (9th Cir. 2002) (emphasis added); *see also Feldman v. Bomar*, 518 F.3d 637, 642–43 (9th Cir. 2008); *Nw Env’tl. Def. Ctr. v. Gordon*, 849 F.2d 1241, 1245 (9th Cir. 1988). The party asserting mootness bears the “heavy” burden of establishing that there is not any effective relief that the court can provide. *Forest Guardians v. Johanns*, 450 F.3d 455, 461 (9th Cir. 2006).

Federal Defendants ignore this general exception to mootness, and do not even acknowledge *Hoopa Valley* or attempt to explain why its reasoning does not apply here. Fed. Def. Br. at 31-32. Thus, they offer no counter to Plaintiffs’ thorough explanation showing the agencies should have reinitiated consultation years ago, and that the failure to do so caused increased harm to salmon and steelhead that can be remedied by injunctive relief. Pl. Br. at 24-26. Like in *Hoopa Valley*, the Corps’ lack of compliance with the fish passage and water quality measures contained in the 2008 Biological Opinion’s Reasonable and Prudent Alternative (“RPA”) undermined the core conclusions of NMFS’s no-jeopardy determination. *See* Pl. Br. at 25-26. Accordingly, Plaintiffs’ reinitiation claim is not moot because the alleged unlawful delay in reinitiation was a substantial procedural violation of the ESA and an injunction can remedy the increased harm to the species caused by the delay. *Hoopa Valley*, 230 F. Supp. 3d at 1135.

B. Jeopardy Claim

With regard to Plaintiffs' jeopardy claim, Federal Defendants assert that a deviation or delay in implementing an RPA does not necessarily mean the action is jeopardizing the species. Fed. Def. Br. at 33. While this may be true, Plaintiffs have not alleged minor deficiencies or short delays in RPA implementation. The Corps has failed to take, or has significantly delayed, actions from the RPA that were the very heart of NMFS's no-jeopardy and no-adverse modification of critical habitat determinations. *See* Pl. Br. at 7-10, 28-29. NMFS stated in the 2008 RPA that "lack of passage is one of the single most significant adverse effects on both the fish and their habitat *Specific passage measures are necessary to address the effects of the Project.* Therefore, NMFS includes specific passage measures *to be completed and operational by set deadlines.*" Pl. Ex. 2 at 9-33 (emphasis added); *see also id.* at 9-52 ("lack of passage is the most significant limiting factor to the viability of the affected populations of UWR Chinook and UWR steelhead").¹ The RPA required interim operational changes by 2011 at numerous dams to quickly improve downstream juvenile migration, and longer-term major structural changes at Cougar, Detroit, and Lookout Point dams by 2023. *Id.* at 9-42 to 9-56. The long-term passage requirements in the RPA were meant to *ensure* that downstream passage would happen at three dams in the next fifteen years. *Id.* at 9-52.

Similarly, the Biological Opinion stated that water quality problems were one of the "major limiting factors" in habitat below the dams and "prevent proper functioning of critical habitat." *Id.* at 9-61; *see also* Pl. Ex. 34 at 7 (stating that water temperatures below Project dams have been identified as one of the primary limiting factors preventing recovery of Upper Willamette River Chinook and steelhead). The RPA required short-term operational changes

¹ Plaintiffs' exhibits 1-48 accompanied their opening brief at ECF No. 36, and exhibits 49-58 are filed with this reply brief.

and longer-term structural changes to address water temperature and dissolved gas problems below dams in the North Santiam, South Santiam, and Middle Fork Willamette subbasins within set timelines. *Id.* at 9-60 to 9-68. Interim operational changes were required by 2011 because “some of the UWR Chinook salmon populations are presently at such low abundance levels and at high risk of extinction, interim measures are needed as soon as possible to avoid further declines in abundance.” *Id.* at 9-61 to 9-63. Lookout Point dam in particular was a priority for operational changes due to high water temperatures downriver in the fall. *Id.* at 9-63. Successful completion of these fish passage and water quality measures in these subbasins was a significant part of NMFS’s conclusion that the RPA would avoid jeopardy to the species and adverse modification of critical habitat. *Id.* at 9-90 to 9-117.

Statements by NMFS since the 2008 Biological Opinion affirmed the need for downstream fish passage to avoid jeopardizing the species. In contrast to Federal Defendants’ claim that the Corps and NMFS have closely coordinated on RPA implementation, Fed. Def. Br. at 33, the record shows that NMFS has been frustrated by the Corps’ lack of progress on downstream fish passage measures and noted their importance for avoiding jeopardy. Pl. Exs. 4, 5, 6, 9, 16 at 3, 51.² In a 2014 memo, NMFS stated that “[r]ecover in Willamette cannot be achieved without downstream fish passage in all 4 basins. This is essential to avoiding jeopardy. . .” Pl. Ex. 5 at 9. The memo concluded that “[t]he action agencies need to focus on doing their part by focusing on increasing abundance at life stages directly affected by the Project through providing passage.” *Id.* at 10. Similarly, a 2015 NMFS briefing paper included the following statements: “[t]he most important action to support survival and recovery is to provide passage”

² Statements about RPA implementation by NMFS Regional Administrator Thom, who has had no direct involvement with the Willamette Project, carry little weight when contradicted by documents written by NMFS biologists who were directly involved. *See* Fed. Def. Br. at 33.

and “Corps/BPA focus needs to be on blocked passage because it is the most significant limiting factor for survival and recovery of these populations, and is caused by their dams.” Pl. Ex. 6 at 2, 3. NMFS’s 2016 status review for the species also listed the continued lack of access to historic spawning habitat as a key threat impairing the viability of Upper Willamette River salmon and steelhead. Pl. Ex. 3 at 16-17. The top recommended future action remained implementation of “effective passage programs and revision of reservoir operations that will promote access to historical spawning and rearing areas currently blocked by the large dams in the four historically most productive tributaries (North and South Santiam, Middle Fork Willamette, and McKenzie rivers).” *Id.* at 19.

Plaintiffs’ experts agree that problems with fish passage through reservoirs and past the dams and poor water quality below the dams remain significant threats to both species, which will never recover without improved access to and from spawning habitat above the dams. Schroeder Decl. ¶¶ 18-21, 23-31, 41-45 (ECF No. 37); Second Schroeder Decl. ¶¶ 9-11, 14-15, 21 (filed herewith); Johnson Decl. ¶¶ 14-47 (ECF No. 39); Domingue Decl. ¶¶ 11-14, 22-31, 36-55 (ECF No. 38).³ Indeed, the Corps’ biologist does not dispute the harm described by Plaintiffs’ experts. *See* Piaskowski Decl. ¶¶ 10-103 (ECF No. 70).

Instead, the Corps claims that it has implemented the RPA in good faith and in a responsible manner that avoids jeopardy. Fed. Def. Br. at 33-34. However, the Brice declaration confirms that the Corps is failing to implement short-term operational measures to improve downstream passage and water temperature required by the RPA, listing only a few actions the Corps has completed. Brice Decl. ¶ 5 (ECF No. 67). For instance, the declaration notes measures only at Foster dam and Fall Creek dam, as well as the portable floating fish collector at

³ The Court’s consideration of the Johnson and Domingue declarations is contingent upon the Court’s decision on Federal Defendants’ motion to exclude their testimony. ECF No. 61.

Cougar, to improve downstream fish passage. *Id.* No measures were listed for any other dam, including Detroit and Lookout Point dams. Moreover, the Cougar fish collector and Foster fish weir were both unsuccessful so are not currently in use. Pl. Exs. 49, 50 at 3-4. The only water temperature control measure listed in the Brice declaration is the continued use of the temperature control tower at Cougar dam, which was built in 2004—before the 2008 RPA was issued. Brice Decl. ¶ 5; Pl. Ex. 2 at 2-114. Notably, the Corps does not conduct any downstream passage or temperature control measures at the Middle Fork Willamette River dams (Hills Creek, Lookout Point, Dexter dams) despite the dire status of this Chinook salmon population and its critical importance for recovery of the species. Pl. Ex. 2 at 4.2-9, 5.2-31, Ex. 23 at 3 (“Oregon views the Middle Fork as a linchpin” to recovery); Second Schroeder Decl. ¶ 14. Further, long-term passage and temperature control solutions at Cougar and Detroit dams are years behind schedule, and no plans are underway for Lookout Point dam. Pl. Ex. 33; Brice Decl. ¶ 18.

Federal Defendants claim that the Corps’ continuing implementation of the RPA is not likely to jeopardize the ESA-listed species during the new consultation process, but that claim rings hollow because the Corps has failed to implement critically important RPA measures for years and continues to refuse to take those necessary actions. Instead, the Corps’ operation of the Willamette Project more closely resembles the proposed action in the 2008 Biological Opinion that NMFS determined was likely to jeopardize the species and adversely modify their critical habitat. Pl. Ex. 2 at 8-4, 8-5.

Federal Defendants’ position is particularly unreasonable given the small abundance and declining trends of both species over the last ten years. Schroeder Decl. ¶¶ 33-37; Second Schroeder Decl. ¶¶ 2, 5-7. This downward trajectory shows the species are not even on a path for survival, let alone recovery. Impairing a species’ recovery constitutes jeopardy; and with

species that remain at low abundance, impeding their progress toward recovery reduces their likelihood of survival. Pl. Br. at 27 (citing *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 931-32 (9th Cir. 2008); *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 184 F. Supp. 3d 861, 891 (D. Or. 2016); *Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 526-29 (9th Cir. 2010)). As Upper Willamette River salmon and steelhead have slipped closer to extinction over the past ten years, the Corps' continued failure to implement critical RPA measures needed to ensure survival and put the species on a path toward recovery violates its duty to avoid jeopardizing these species. 16 U.S.C. § 1536(a)(2).

C. Take Claim

Finally, Federal Defendants argue that the Corps has not violated the specific Terms and Conditions of the Incidental Take Statement in the 2008 Biological Opinion so it is still exempt from liability for any take that is occurring from operation of the Willamette Project. Fed. Def. Br. at 34-35. This argument ignores a key component of the Incidental Take Statement.

An Incidental Take Statement must specify the “impact” of the incidental takings on the species. 16 U.S.C. § 1536(b)(4)(i). After identifying the amount or extent of take anticipated to occur from the action, NMFS can authorize that take as long as it will not jeopardize the species. *Id.* § 1536(b)(4)(B). Here, NMFS stated that incidental take would occur as a result of the continued operation of the Willamette Project dams and estimated the maximum amount or extent of take anticipated to occur during implementation of the RPA. Pl. Ex. 2 at 11-5 to 11-6. NMFS expected that RPA implementation would fully occur, reducing the amount of take from passage mortality and adverse water quality and quantity conditions. *Id.* at 11-6. Therefore, the terms and conditions in the Incidental Take Statement were only minor changes that “further elaborate[d] on the more general measures” in the RPA. *Id.* at 11-40. Importantly, NMFS

concluded that because it had already determined implementation of the RPA was not likely to jeopardize the species, it had fully considered the effect on the species from the amount and extent of take authorized in the Incidental Take Statement. *Id.* at 11-10.

Thus, regardless of whether “implementation of the RPA” was specifically listed within the Terms and Conditions, it was clearly a condition of the Incidental Take Statement given that the Terms and Conditions were only “further elaboration” of the RPA. As stated by this Court previously, “[t]ake that exceeds the conditions of the [Incidental Take Statement] invalidates the safe harbor provision of the [Incidental Take Statement], leaving the agency that authorized the activity resulting in take liable for violating § 9.” *Or. Natural Desert Ass’n v. Tidwell*, 716 F. Supp. 2d 982, 1005 (D. Or. 2010). Here, by not implementing numerous important measures from the RPA that were expected to reduce the amount of mortality and injury to the species, the Corps has not met a key condition of the Incidental Take Statement.

Moreover, NMFS clearly based its assessment of the impact of the authorized take on its assumption that the Corps would fully implement the RPA, and thus would not jeopardize the species. Pl. Ex. 2 at 11-10. The failure to implement critical RPA components undermines the no-jeopardy conclusion that the Incidental Take Statement relied upon when determining the impact of the authorized take. This too invalidates the Incidental Take Statement. *See Hoopa Valley*, 230 F. Supp. 3d at 1119-20, 1133. As noted above, NMFS can only authorize incidental take that will not result in jeopardy to the species. 16 U.S.C. § 1536(b)(4)(B). Without a valid Incidental Take Statement, the Corps is liable for take. As the Biological Opinion and Plaintiffs’ experts have explained, the Corps’ operation of the Willamette Project results in mortality, injury, and significant habitat degradation for Upper Willamette River salmon and steelhead, and thus the Corps is violating ESA Section 9. *Id.* §§ 1538, 1532(19); 50 C.F.R. § 17.3.

II. Plaintiffs Have Met the Other Factors Needed to Justify a Preliminary Injunction.

Plaintiffs demonstrated above they are likely to succeed on each of their legal claims. They also fulfill the other requirements for a preliminary injunction. Federal Defendants' attempts to impose heightened standards for this preliminary injunction are incorrect and inconsistent with the law from this Court and the Ninth Circuit when status quo conditions are impairing the survival and recovery of an ESA-listed species.

A. A Preliminary Injunction is Appropriate When the Status Quo is Jeopardizing and Taking Threatened Species.

Federal Defendants argue that a preliminary injunction is intended to preserve the status quo, and mandatory injunctions are highly disfavored. Fed. Def. Br. at 10. They cite to *Center for Biological Diversity v. U.S. Bureau of Reclamation*, which claimed that mandatory injunctions requiring a defendant to act, rather than enjoining a proposed action, are particularly disfavored and impose a higher burden on plaintiffs because they go well beyond simply maintaining the status quo. No. 6:15-cv-2358-JR, 2016 WL 9226390, at * 1 (D. Or. April 6, 2016). The Ninth Circuit cases cited to support those statements, some of which Federal Defendants also cite, were not ESA cases, however, and did not involve a situation where “simply maintaining the status quo” was the very harm plaintiffs were trying to alleviate. *Id.*

In contrast, the Ninth Circuit and other courts have held that injunctions are appropriate when the status quo is harming the species. In *Washington Toxics Coalition v. EPA*, the Ninth Circuit explained that only non-jeopardizing actions can continue while ESA consultation is being completed, and it upheld injunctive relief restricting pesticide use along streams that had ESA-listed species, noting that it was “the very maintenance of the ‘status quo’ that is alleged to be harming the endangered species.” 413 F.3d 1024, 1034-35 (9th Cir. 2005), *abrogated on other grounds by Cottonwood Envtl. Law Ctr. v. U.S. Forest Serv.*, 789 F.3d 1075, 1088-92 (9th

Cir. 2015). *Defenders of Wildlife v. Martin* similarly held that an agency cannot continue an action during reinitiation of consultation if the action would likely cause jeopardy and take of an ESA-listed species. 454 F. Supp. 2d 1085, 1095-99 (E.D. Wash. 2006). There, because the status quo activity would likely jeopardize and take the listed species, the court granted plaintiffs' *preliminary* injunction request to prevent ongoing harm to species. *Id.* at 1093, 1099.

In a situation analogous to the one here, the Ninth Circuit has upheld injunctions ordering the Corps to alter operations of the Columbia River dams pending new consultations when status quo operations were harming threatened salmon and steelhead. *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 886 F.3d 803, 804, 815, 818-24 (9th Cir. 2018); *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 422 F.3d 782, 792-800 (9th Cir. 2005). Federal Defendants try to distinguish the Columbia River injunctions by stating that the 2018 case involved an injunction after a ruling on the merits, not a preliminary injunction. Fed. Def. Br. at 10. This argument is unavailing because the 2005 case did involve a preliminary injunction. *Nat'l Wildlife Fed'n*, 422 F.3d at 788. The Ninth Circuit found that plaintiffs were likely to succeed on the merits and upheld the district court's finding that continuation of the status quo would result in irreparable harm to a threatened species. *Id.* at 796. It stated that "[t]hose are precisely the circumstances in which our precedent indicates that the issuance of an injunction is appropriate." *Id.*

Moreover, the 2018 case also used the standard for a preliminary injunction because plaintiffs were only seeking interim relief during the two-year remand period for completion of a new Biological Opinion. *Nat'l Wildlife Fed'n*, 886 F.3d at 817-18. Notably, in that case the Ninth Circuit cited the *Garcia v. Google* case Federal Defendants cite to support their mandatory injunction theory but the court did not assert that the injunction was a mandatory injunction or required a heightened burden of proof. *Id.* at 818. In both cases, the court upheld injunctions

ordering changes to dam operations to improve downstream migration of juvenile fish. *Nat'l Wildlife Fed'n*, 422 F.3d at 796-99; *Nat'l Wildlife Fed'n*, 886 F.3d at 820-24; *see also Am. Rivers v. U.S. Army Corps of Eng'rs*, 271 F. Supp. 2d 230, 248-49, 262-63 (D.D.C. 2003) (using standard preliminary injunction factors and ordering Corps to implement water flows at dams on Missouri River needed to protect threatened species); *Rio Grande Silvery Minnow v. Keys*, 356 F. Supp. 2d 1222, 1236-37 (D. N.M. 2002) (granting preliminary injunction and ordering Bureau of Reclamation to release flows sufficient to protect threatened fish).

Other cases issuing interim injunctions to alter dam or water diversion operations pending a new ESA consultation in order to protect listed species did not require plaintiffs to meet a heightened burden of proof. *Hoopa Valley*, 230 F. Supp. 3d at 1136-42, 1146; *S. Yuba River Citizens League v. Nat'l Marine Fisheries Serv.*, 804 F. Supp. 2d 1045, 1050-67 (E.D. Cal. 2011); *Wishtoyo Foundation v. United Water Conservation Dist.*, No. 2:16-cv-3869-DOC-PLA, 2018 WL 6265099, at *63-67 (C.D. Cal. Sept. 23, 2018); *Pac. Coast Fed'n of Fishermen's Ass'ns v. Bureau of Reclamation*, 138 F. Supp. 2d 1228, 1247-50 (N.D. Cal. 2001); *Pac. Coast Fed'n of Fishermen's Ass'ns v. Bureau of Reclamation*, No. Civ. C02-2006 SBA, 2006 WL 798920, at *6-7 (N.D. Cal. March 27, 2006).

These cases demonstrate that courts have not imposed heightened standards in ESA cases even where “mandatory” injunctive relief was ordered when the status quo was the very thing harming the species, which is the situation here.

B. Plaintiffs Have Established Likely Irreparable Harm.

In essence, Federal Defendants argue that Plaintiffs have not shown irreparable harm because the Corps' operations of the Willamette dams have caused so much harm to the species already that further harm over the next one to two years will not matter. Fed. Def. Br. at 11-14.

Specifically, they claim that the species have been in bad shape for a while and have not gone further downhill since they were listed as threatened, that the dams are not the only cause of their poor status, and that changes at the dams shows that harm from past operations does not necessarily mean irreparable harm will occur from continuing operations in the next year or two. *Id.* These three points are misleading or simply wrong.

First, Upper Willamette River Chinook salmon and steelhead have declined in the ten years since the Biological Opinion was issued. Schroeder Decl. ¶¶ 13, 33, 36; Second Schroeder Decl. ¶ 2. Although the 2016 status review maintained the species' threatened status rather than upgrading them to endangered, it also stated that there was likely a further decrease in the viability status of Upper Willamette River Chinook since 2010—with the decline of the stronghold McKenzie population being particularly concerning; and it found that Upper Willamette steelhead had also declined in abundance. Pl. Ex. 3 at 15, 42. The declines in steelhead abundance were “relatively moderate,” but continued declines would be “a cause for concern.” *Id.* Plaintiffs' expert confirms that steelhead numbers have continued to decline since 2016, with very low runs of 543 fish in 2017 and 1,233 in 2018 compared to average runs of 3,200 fish in the 2008-2018 period and more than 10,000 in the 1970-1980's. Schroeder Decl. ¶ 13. Similarly, less than 10,000 wild Chinook currently return to the Upper Willamette each year compared to the several hundred thousand that historically returned each year. *Id.* ¶ 12.

Mr. Schroeder, who studied Upper Willamette River Chinook populations for seventeen years, discussed in detail the continued declines in abundance for both species since the 2008 Biological Opinion, noting that most returning Chinook are now hatchery fish. *Id.* ¶¶ 12-13, 33-36. Peaks in abundance of wild Upper Willamette River Chinook went from 17,600 in 2003 to 12,000 in 2011, 8,800 in 2015, and 4,800 in 2018. *Id.* ¶ 33. The McKenzie and South Santiam

populations of wild Chinook have both declined in recent years, and overall abundance of wild Chinook in the North Santiam, South Santiam and Middle Fork Willamette subbasins remains very low (less than 1,000 fish in each subbasin). *Id.* ¶ 35. In contrast, wild Chinook numbers in near-by Clackamas and Sandy River basins have increased in recent years, with more than 2,900 and 3,500 wild fish respectively, likely due to improvements in fish passage at Clackamas River dams and removal of the Marmot Dam on the Sandy River. *Id.* ¶ 34.

Upper Willamette Steelhead have also declined significantly since 2008. Peaks in abundance have gone from more than 15,000 in the 1970's and 1980's to 11,000 in 2001/2002, to less than 5,000 since 2010. *Id.* ¶ 36. Average runs of steelhead in each of the four populations have gone down drastically when comparing the 2008-2016 period to the 1985-2007 period (declines of 38% in North Santiam, 56% in South Santiam, 27% in Molalla, and 43% in Calapooia subbasins). *Id.* In contrast, winter steelhead populations in the Clackamas and Sandy basins have increased in recent years. *Id.* ¶ 37. Mr. Schroeder's second declaration confirms the declining trends of both species since the 2008 Biological Opinion was issued. Second Schroeder Decl. ¶¶ 2-7.

Second, while the Willamette Project dams are not the only cause of the species' poor status, they are a very significant factor. The 2008 Biological Opinion determined that without all of the measures required by the RPA, the continued operation of the dams was likely to jeopardize the continued existence of both species and adversely modify their critical habitat. Pl. Ex. 2 at 8-4, 8-5. The 2011 Recovery Plan for the species listed impaired downstream passage at the dams at the first key threat limiting viability of the populations in the four subbasins at issue here and showed flood control/hydropower dams as the *largest source of mortality* in those subbasins. Pl. Ex. 1 at 5-47, 5-55, 5-68, 5-73, 6-30, 6-32, 6-36, 6-38, 6-42, 6-44. The Recovery

Plan identified as the highest priority actions those to address the direct impacts of flood control/hydropower and dam/reservoir operations, with increased juvenile fish survival prioritized as needing immediate action. *Id.* at 7-8, 9-3, 9-4. As discussed above, NMFS has reiterated that without downstream juvenile fish passage in the four key subbasins, the Willamette Project dams will continue to jeopardize both species. *See supra* pp. 5-6.

Based on his many years of experience conducting research in the Upper Willamette basin, Mr. Schroeder similarly explains the large role that the dams play in impairing the viability of the species. He states that, “the Corps’ ongoing operation and maintenance of its dams have contributed to the continued decline of spring Chinook salmon and winter steelhead and has prevented their recovery.” Schroeder Decl. ¶ 41. He notes that other factors have contributed to the decline of the species over time, but that measures have been taken to reduce many of those effects. *Id.* ¶ 43. In contrast, the primary adverse effects of the dams and dam operations have continued and diminish the capacity of the species to adjust to other factors and changing conditions. *Id.* ¶ 44. He concludes that “the dams are the primary reason that the species were listed as threatened under the ESA and recovery will not be possible without major alterations to the dams and dam operations.” *Id.*; *see also* Second Schroeder Decl. ¶ 9 (stating that project dams and their operations remain one of the biggest threats to populations of Upper Willamette River salmon and steelhead, and have led to long-term decline of these species).

Yet few changes at the dams have occurred to address the most significant threats to the species—lack of downstream juvenile fish passage and impacts to water quality—and therefore current operations continue to harm these fish. As noted above, the Corps confirms that very few measures to address downstream fish passage and water temperature are occurring at the dams. *See supra* pp. 6-7; Brice Decl. ¶ 5. Each year, there is high mortality of juvenile fish trying to

migrate downriver through reservoirs and past dams; and degradation of habitat below dams occurs from high water temperatures during fall and early winter spawning and rearing seasons, high levels of total dissolved gas, altered water flows, and lack of key habitat components like sediment and woody debris. Schroeder Decl. ¶¶ 15-32; Second Schroeder Decl. ¶¶ 9-11; Johnson Decl. ¶¶ 14-47; Domingue Decl. ¶¶ 9-55 *see also* Pl. Br. at 11-21 (discussing effects).

Federal Defendants have not disputed that these effects occur. Instead, they assert that another 1-2 years of these adverse impacts are not enough to show irreparable harm for a preliminary injunction. Fed. Def. Br. at 12-14. Many of the cases Plaintiffs cited above contradict this assertion, ordering injunctions that would only be in place for a short time. *See Nat'l Wildlife Fed'n*, 422 F.3d at 796-99 (preliminary injunction); *Am. Rivers*, 271 F. Supp. 2d at 262-63 (preliminary injunction); *Defenders of Wildlife*, 454 F. Supp. 2d at 1093, 1099 (preliminary injunction); *Rio Grande Silvery Minnow*, 356 F. Supp. 2d at 1236-37 (preliminary injunction); *S. Yuba River Citizens League*, 804 F. Supp. 2d at 1049, 1054-68 (interim injunction in place for 6 months); *Nat'l Wildlife Fed'n*, 886 F.3d at 818-24 (interim injunction during two-year remand period); *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 839 F. Supp. 2d 1117, 1130-31 (D. Or. 2011) (interim injunction during 2.5-year remand period). These cases all found irreparable harm in situations similar to the one here: species were at low abundance and ongoing federal activities would continue to kill or harm individuals of the species during the short period before trial or completion of a new Biological Opinion.

The cases over the Columbia River dams are directly on point. For the 2005 *preliminary* injunction, the court noted high mortality of juvenile fish was occurring during downstream migration due to operation of the dams and mitigation measures were not improving conditions. *Nat'l Wildlife Fed'n*, 422 F.3d at 795. NMFS's biological opinion had concluded that the

present operations of the system were jeopardizing salmon and steelhead species, but the Corps refused to alter its plans for summer dam operations. *Id.* at 799. Because the ongoing operations would continue to kill fish, plaintiffs had established irreparable harm that warranted an order for the Corps to spill more water over the dams to assist with juvenile migration. *Id.* at 796-99.

Additional orders for the Corps to spill water over the dams to assist juvenile migration came in 2011 and 2017. *Nat'l Wildlife Fed'n*, 839 F. Supp. 2d at 1131; *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. 3:01-cv-640-SI, 2017 WL 1829588, at *5 (D. Or. April 3, 2017), *aff'd* 886 F.3d 803 (9th Cir. 2018). These cases found that irreparable harm was likely where the listed species remained in a highly precarious status, and ample evidence existed that ongoing operation of the dams causes substantial harm to the listed salmonids, including through high mortality of juveniles migrating through the dams. *See Nat'l Wildlife Fed'n*, 886 F.3d at 820-21 (discussing findings from prior cases). An injunction was warranted to reduce that harm during the short period before NMFS issued a new biological opinion. *Id.* at 815, 818-22 (two-year period); *Nat'l Wildlife Fed'n*, 839 F. Supp. 2d at 1130-31 (2.5-year period).

Federal Defendants ignore these cases because there is no logical way to distinguish them from the Willamette situation. Upper Willamette River wild salmon and steelhead are even more highly imperiled than Columbia River salmon given their recent declines and very low abundance; the Willamette dams are the leading cause of harm to the fish; and the Corps has resisted making key changes to operations to improve conditions. Even short-term harm can be significant for species with short life cycles, such as salmon and steelhead. *See Nat'l Wildlife Fed'n*, 524 F.3d at 935 (short-term impacts could affect fishes' survival and recovery in light of the species' short life-cycles and current poor habitat conditions). Federal Defendants' reliance on hatchery fish to sustain the species is unreasonable. Piaskowski Decl. ¶¶ 7, 101; Second

Schroeder Decl. ¶ 8; *Nat'l Wildlife Fed'n*, 524 F.3d at 935 (the longer a species relies on a hatchery program for its existence, “the greater the risks associated with domestication and loss of genetic diversity, which will increase the difficulty of reestablishing a viable population in the [species’] native habitat.”). As Mr. Schroeder concluded, the Willamette Project is impairing all of the parameters needed for viable salmonid populations—abundance and productivity, spatial distribution, and diversity—and remains the primary threat to the species. Schroeder Decl. ¶¶ 14, 31, 40-44; Second Schroeder Decl. ¶¶ 8-10, 28.

Finally, the last argument Federal Defendants make about irreparable harm is that Plaintiffs have not shown there will be a change to the status of the entire species caused by dam operations over the next 1-2 years while this case is fully litigated. Fed. Def. Br. at 13-15. Last year, the Ninth Circuit clearly rejected this theory. *Nat'l Wildlife Fed'n*, 886 F.3d at 818-19. Plaintiffs need not show an extinction-level risk to the species to establish irreparable harm; harm to *members* of a listed species is irreparable because “[o]nce a member of an endangered species has been injured, the task of preserving that species becomes all the more difficult.” *Id.* at 818 (quoting *FCC v. Rosboro Lumber*, 50 F.3d 781, 785 (9th Cir. 1995)). Plaintiffs have shown that operation of the Willamette dams will cause harm to members of Upper Willamette River salmon and steelhead in the immediate future, which is all they need to show.

C. The Balance of Hardships Tips Strongly Toward Protecting the Species.

Federal Defendants argue that the injunction Plaintiffs seek consists of new actions that will not benefit the species, and thus the balance of harms and public interest favor allowing the consultation process to play out rather than ordering Plaintiffs’ new measures. Fed. Def. Br. at 28-30. The entire premise of this argument is flawed because Plaintiffs’ proposed measures are not “new actions” but, rather, actions from the RPA that the Corps should have taken years ago.

In fact, the Corps' commitment to implement the RPA during the consultation process, *see* ECF No. 64-3, would encompass the crucial measures that form the basis of Plaintiffs' injunction request. Because the consultation process will take years, time which these highly imperiled species cannot afford to lose, the balance of hardships and public interest dictate that measures to improve downstream passage and water temperatures occur now.

Federal Defendants' theory that the Court should wait for expert agency NMFS to decide what actions should occur via the new consultation is undermined by the fact that NMFS already recommended in the 2008 RPA the measures Plaintiffs seek. For instance, the 2008 RPA measure for interim downstream passage identified partial or full reservoir drawdown during the juvenile outmigration period, modification of reservoir refill rates, and using outlets or spillways that are not typically used to pass outflow as measures the Corps needed to consider to improve downstream passage. Pl. Ex. 2 at 9-42, 9-43. And the RPA required outplanting of hatchery Chinook above Green Peter dam to evaluate passage at that dam. *Id.* at 9-33. Likewise, the RPA required the Corps to conduct interim water quality measures by using existing conduits such as spillways, regulating outlets, and turbine outlets to achieve some measure of temperature control and reduced TDG exceedences below numerous dams, including Detroit and Lookout Point. *Id.* at 9-61. Plaintiffs' requested measures to improve downstream passage and water temperature are exactly the type of measures NMFS contemplated in the 2008 RPA. Pl. Ex. 44 at 1-3.

In fact, the Corps assessed these or very similar actions in its 2012 report on operational measures ("OMET report"), as its own declarant admits, and in further proposals. Pl. Ex. 12 at ES-3 to ES-6 (OMET report); Wells Decl. ¶¶ 44, 56, 61, 75 (ECF No. 69); Pl. Exs. 19, 20, 24, 27, 45 (proposals for drawdowns at Cougar, Lookout Point, and Detroit). NMFS continued to press for interim downstream passage measures in subsequent years, including a deep drawdown

at Lookout Point, using regulating outlets at Cougar dam to help pass fish, and outplanting of Chinook above Green Peter as recently as 2017. Pl. Exs. 9, 10 at 2-3, 21 at 3, 22, 29, 30, 31, 51.

The 2008 RPA also required the Corps to follow emergency and maintenance protocols that it developed with NMFS to minimize impacts to water quality; and to work cooperatively with NMFS on RPA implementation, including modifying proposed actions to address NMFS's concerns or reinitiating consultation. Pl. Ex. 2 at 9-8 to 9-9, 9-36 to 9-37, 9-66 to 9-67.

Plaintiffs' injunction requests regarding compliance with maintenance and emergency protocols and coordination with NMFS all fall within the 2008 RPA. Pl. Ex. 44 at 3-4. Accordingly, Plaintiffs are not seeking any actions that NMFS did not previously recommend, and Federal Defendants have not submitted any declarations from the *expert* agency biologists to dispute these measures or assert they would not be beneficial to the listed species.

In contrast, waiting years for the agencies to complete and then implement the new consultation before critical actions could occur to improve conditions for the fish would be highly detrimental to the species. The Corps estimates that a new biological opinion would not be finished until 2023, and actions required by that consultation would not be implemented until after that. Given the history of delay in completing the 2008 consultation, and the Corps' failure to implement most of the RPA measures on time, it could be far longer before significant actions are implemented under a new consultation. *See* Pl. Ex. 2 at 1-6 to 1-8; Pl. Br. at 12-20. Upper Willamette River salmon and steelhead cannot afford to wait that length of time before any attempts are made to improve downstream passage when that impact alone is impairing the survival and recovery of both species.

Federal Defendants and Intervenor also argue that the Court should reject Plaintiffs' measures because they will interfere with power production, recreation use, and the City of

Salem's drinking water supply. Fed. Def. Br. at 30; Int. Br. at 10-13 (ECF No. 60). As Plaintiffs explain in detail below, the Corps has discretion in how it balances the multiple uses of the Willamette Project dams and can reduce power production or recreation in order to comply with the mandates of the ESA. *See infra*, pp. 23-27.

In ESA cases, courts “presume. . . that the balance of interests weighs in favor of protecting endangered species, and that the public interest would not be disserved by an injunction.” *Nat'l Wildlife Fed'n*, 886 F.3d at 817. As this Court held when issuing its spill injunction for the Columbia River dams, “the Court does not weigh the public interest or balance the equities, for example by weighing any potential implications on the power system or costs to the Federal Defendants.” *Nat'l Wildlife Fed'n*, 2017 WL 1829588, at *6, *aff'd* 886 F.3d at 817; *see also Nat'l Wildlife Fed'n*, 422 F.3d at 794 (rejecting argument that district court erred by failing to weigh economic harm to the public in its preliminary injunction analysis). Thus, impacts on power production and increased costs to Bonneville Power Administration (“BPA”) are irrelevant here. Fed. Def. Br. at 30; Connolly Decl. ¶¶ 36-47 (ECF No. 66). Moreover, the reduction in power production would have a small effect on the overall power supply from the BPA system as the Willamette dams provide less than 4% of that power, and Plaintiffs’ proposals would reduce that small supply by only about 8%. Connolly Decl. ¶¶ 18, 36.

Likewise, economic harm from reduced recreation or agricultural use also does not outweigh protection of species in an ESA injunction analysis. *Defenders of Wildlife v. Martin*, 05-cv-248-RHW, 2007 WL 641439, at *7 (E.D. Wash. Feb. 26, 2007) (enjoining snowmobile use to protect endangered species); *Klamath Water Users Protective Ass’n v. Patterson*, 204 F.3d 1206, 1213 (9th Cir. 1999), *opinion amended on denial of reh’g*, 203 F.3d 1175 (9th Cir. 2000) (irrigators’ rights to water subservient to ESA compliance). Thus, Intervenor’s arguments

concerning economic harm to Marion County from drawdown of Detroit Lake is similarly unavailing. Int. Br. at 8-9.

With regard to impacts on the City of Salem's drinking water, Plaintiffs have recognized a public health and safety exception could apply to an ESA injunction analysis and thus have limited their injunction request to preclude any operational changes that would impair that drinking water system or other public health and safety factors like flood control. Pl. Ex. 44 at 1, 4; Pl. Br. at 34, n.7. For instance, monitoring of sediment and turbidity levels could occur during the Detroit Lake drawdown, and the Corps could slow or stop lowering the reservoir if levels became too high for the water treatment facility. *See* Int. Br. at 5-7 (discussing potential impacts to water treatment facility); Pl. Ex. 24 (noting for prior Cougar drawdown that operation could be altered, suspended, or ended if conditions warranted). Intervenor's concerns about a drawdown extending into April have no basis because Plaintiffs are not proposing the Corps conduct such a drawdown, just re-evaluate its feasibility. Int. Br. at 7-8; Pl. Ex. 44 at 2.⁴

Finally, Plaintiffs' drawdowns would not affect flood control because the reservoirs would be drawn down to a low level during the flood control season (December-January), allowing for capture of high flow events. Plaintiffs understand that the reservoir levels may have to be adjusted temporarily to accommodate flood control operations during those drawdowns. *See* Wells Decl. ¶ 108. Accordingly, none of Defendants' asserted harms outweigh protection of the listed species.

⁴ Intervenor's argument that an injunction would prejudice their cross-claims in the case is also incorrect as their claims concern a project to completely drain Detroit Lake and construct a temperature control tower, not the operational drawdown Plaintiffs are seeking. ECF # 57 ¶¶ 35-48.

III. Plaintiffs’ Proposed Measures are Within the Corps’ Authority and Will Benefit Upper Willamette Salmon and Steelhead.

Plaintiffs’ proposed injunctive relief is narrowly tailored to address the most significant harms to the species from operation of the Willamette Project: high mortality during downstream juvenile migration at high head dams, and water quality below dams. The Corps claims it does not have legal authority to conduct Plaintiffs’ proposed operations, and the operations will not help the species anyway, but these arguments are not supported by the law or by Federal Defendants’ declarants.

A. The Corps has Authority to Conduct Deep Drawdowns.

Federal Defendants assert that House Document 531 (“HD 531”), which accompanied the Flood Control Act of 1950, governs the Corps’ authorities when managing the Willamette Project. Fed. Def. Br. at 17; Wells Decl. ¶ 9. They claim that language in Appendix J of HD 531 means the Corps *must* use certain storage water within Willamette Project reservoirs to generate power and therefore cannot release that water through other outlets for purposes of improving fish migration. Fed. Def. Br. at 17. Federal Defendants support their interpretation of HD 531 with a few cherry-picked sentences, but that document, the Flood Control Act and other statutes, and caselaw make clear the Corps has discretion to alter its dam operations to adjust to changing conditions—including needs of ESA-listed species. Congress did not expect the Corps’ operations to be set in stone by a 1950 document.

The Flood Control Act of 1950 authorized various projects in the Columbia and Willamette River basins for flood control “and other purposes,” and those projects were to be implemented “substantially” in accordance with the plans recommended in HD 531. Pub. L. No. 81-516, 64 Stat. 163, 179 (1950). These “other purposes” were described in HD 531 as irrigation, power generation, fish and wildlife conservation, water quality, water supply,

navigation and recreation. HD 531 at 1, 12, 248, 2034;⁵ Wells Decl. ¶ 12; *see also Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. 01-cv-640-RE, 2005 WL 1278878, at *10 (D. Or. May 26, 2005) (stating that Congressionally-authorized purposes for dams in the Columbia River system consisted of power production, fish and wildlife protection, recreation, navigation, irrigation, flood control, and water quality).

Subsequently, Congress amended the Fish and Wildlife Coordination Act in 1958 so that wildlife conservation received equal consideration and had to be coordinated with other features of water-resource development. *Nat'l Wildlife Fed'n*, 2005 WL 1278878, at *9 (citing 16 U.S.C. § 661). Then in 1980, the Northwest Power Act “established an affirmative conservation mandate” to protect, mitigate, and enhance fish and wildlife in the Columbia basin, including the Willamette River, by requiring federal agencies to exercise their power production and other responsibilities in a manner that provided equitable treatment for fish and wildlife. *Id.* (citing 16 U.S.C. § 839). Thus, the Northwest Power Act placed “fish and wildlife concerns on an equal footing with power production.” *Id.* (quoting *Confederated Tribes and Bands of the Yakima Indian Nation v. Fed. Energy Regulatory Comm'n*, 746 F.2d 466, 473 (9th Cir. 1984)).

In light of the various statutory authorities governing operation of the Columbia basin dams, the Ninth Circuit and this Court have both recognized the Corps’ discretion to manage those dams for the benefit of threatened fish, even at the expense of hydropower production. *Nat'l Wildlife Fed'n*, 524 F.3d at 928-29 & n.8; *Nat'l Wildlife Fed'n*, 2005 WL 1278878, at *9-10. The authorizing statutes imposed broad goals but did not dictate how the agencies must fulfill those goals, giving them considerable discretion in choosing what specific actions to take when managing the dams. *Nat'l Wildlife Fed'n*, 524 F.3d at 928-29. As this Court stated, “[t]he

⁵ HD 531 is found at http://www.streamnetlibrary.org/?page_id=895.

action agencies have considerable discretion in their administration of the systems, allowing them to meet their mandates and yet adjust operations to fulfill multiple purposes, even though there may be some conflict among the purposes.” *Nat’l Wildlife Fed’n*, 2005 WL 1278878, at *10. Because of this management discretion, the Corps must operate the dams in compliance with the ESA’s no-jeopardy mandate regardless of the expense or burden. *Nat’l Wildlife Fed’n*, 524 F.3d at 929. Accordingly, these courts have ordered the Corps to conduct Columbia River dam operations to benefit fish at the expense of power production. *See Nat’l Wildlife Fed’n*, 422 F.3d 788; *Nat’l Wildlife Fed’n*, 839 F. Supp. 2d at 1131; *Nat’l Wildlife Fed’n*, 2017 WL 1829588, at *6, *aff’d*, 886 F.3d 803 (all ordering water to be spilled over dams rather than run through turbines in order to improve fish migration).

Other courts have similarly recognized the Flood Control Acts impose broad goals and the Corps has broad discretion when balancing the multiple uses of dams, requiring compliance with the ESA even at the expense of some uses so long as an authorized use is not entirely abandoned. *Am. Rivers v. U.S. Corps of Eng’rs*, 271 F. Supp. 2d at 252-53; *In re: Operation of the Missouri River System Litigation*, 421 F.3d 618, 630-31 & n.9 (8th Cir. 2005); *Miccosukee Tribe of Indians of Florida v. U.S. Army Corps of Eng’rs*, 716 F.3d 535, 541-45 (11th Cir. 2013). Because Congress did not generally mandate a particular level of any use, the agency has discretion to “determine how to balance different interests and purposes.” *Am. Rivers, Inc. v. Corps*, 421 F.3d 618, 631 (8th Cir. 2005). The same reasoning applies here.

Federal Defendants argue that HD 531 eliminates the Corps’ discretion to reduce power production during October through March to benefit other uses such as fish and wildlife. Fed. Def. Br. at 17-18. This argument is based on two sentences picked from a 1000-page appendix to HD 531, and ignores the overall content and context of the full document. Language in HD

531 makes clear that its plans were just a “general guide” for management of the dams in the Columbia and Willamette basins, which could be adjusted later as conditions changed or more information about the dams’ effects became known—including effects on fish. HD 531 at 15-16, 19-21, 253, 324, 334, 342, App. P. Indeed, the very beginning of the document states that the dams were to be operated “generally” in accordance with the plans outlined in HD 531, with such “modifications” as the Chief of Engineers may find to be advisable. *Id.* at 5, 21.

Appendix J to HD 531 pertained to the Willamette Basin in particular, and contained extensive detail about Project dams as well as numerous studies related to regulating uses of the dams. *See id.* at 1661-82 (Appendix J Table of Contents). This appendix also noted the need for fish research, including studying how to pass fish over high dams, as well as the ability to adjust flood control regulation in the future based on increased knowledge. *Id.* at 1824, 2037, 2283-84.

Federal Defendants’ quotes concerning the “exclusive use” of certain storage water for power production during October to March were based on the rule curves developed in the Appendix J “reservoir regulation study,” which estimated water requirements for each authorized use and developed a coordinated plan where each use would get maximum benefit based on an average year. *Id.* at 2052; *see also* Wells Decl. ¶ 18 (study resulted in water control plan for each dam). Adequate stream flows for preservation of anadromous fish was a prime consideration in regulation of reservoirs in the Middle Fork Willamette, South Santiam, North Santiam, and McKenzie subbasins. *Id.* at 2056. The study included “storage regulation for power” to estimate the maximum storage required at each dam to ensure power production for the season. *Id.* at 2057-58. Notably, Appendix J stated that the reservoir regulation study was based on the best available information at the time but the rule curves developed “*should not be considered final if future developments in the basin should alter the concept of any of the conservation*

requirements, or should research indicate that a change in reservoir regulation policy would be beneficial.” Id. at 2064 (emphasis added).

Indeed, courts have recognized that plans such as those in HD 531 are preliminary in nature, and may be adjusted by the Corps later to accommodate newly discovered facts or changes in physical or legal conditions. *United States v. 2,606.84 Acres of Land*, 432 F.2d 1286, 1292 (5th Cir. 1970), *cert. denied*, 402 U.S. 916 (1971); *Creppel v. U.S. Army Corps of Engineers*, 670 F.2d 564, 572-73 (5th Cir. 1982). *See also Britt v. U.S. Army Corps of Engineers*, 769 F.2d 84, 89 (2nd Cir. 1985).

Accordingly, HD 531 did not set the Corps’ management in stone; the Corps has discretion to alter operations of the Willamette dams to benefit ESA-listed species at the expense of other uses—including power production—just as it does with the Columbia dams. Plaintiffs’ proposed measures would not cause the Corps to entirely abandon the use of these dams for power production, it would simply curtail that production at three dams for a couple months to benefit fish migration—an acceptable balancing of the authorized uses to comply with the ESA.

Federal Defendants lastly argue that the Court cannot impose an injunction that would result in total dissolved gas (“TDG”) greater than 110% below the dams because it would violate State law. Fed. Def. Br. at 18-19. This argument is directly refuted by this Court’s recent order requiring the Corps to increase spill over the Columbia River dams that would result in up to 115% TDG in the forebay and 120% in the tailrace of the dams. *Nat’l Wildlife Fed’n*, 2017 WL 1829588, at *7-9, *aff’d*, 886 F.3d at 823-24. Therefore, this Court could likewise order operational changes at dams that result in greater than 110% TDG here.

B. Plaintiffs’ Measures Will Benefit the Species.

The Corps’ lack of action to improve downstream fish passage at Lookout Point, Detroit,

and Cougar dams, as well as to improve fall/winter water temperatures below Lookout Point and Detroit dams, continues to cause significant harm to Upper Willamette River salmon and steelhead. Plaintiffs have narrowly tailored their requested relief to address these specific harms. *Nat'l Wildlife Fed'n*, 886 F.3d at 823. Some uncertainty about the efficacy of the requested relief does negate the need for these measures when the status quo is clearly causing irreparable harm to the listed species. *Id.*

1. Interim Measures Are Needed.

The Corps' biologist argues that continuing to delay any changes to downstream passage is acceptable because the agency is working on long-term structural solutions at those dams, and hatchery fish will sustain the species in the meantime. Piaskowski Decl. ¶¶ 7, 101. The Court owes no deference to this opinion. *Sierra Forest Legacy v. Sherman*, 646 F.3d 1161, 1186 (9th Cir. 2011) (no deference to opinions of agency experts about injunctive relief). For this and other reasons, the Court should reject this excuse to avoid making immediate changes.

First, the passage structures the Corps is planning at Cougar and Detroit dams are years from implementation—and no plans are even underway at Lookout Point dam. Pl. Ex. 33 (timeline for structures); Brice Decl. ¶ 18 (Corps has “begun” NEPA process for Cougar and Detroit dams that will inform the scale and design of the structures, but no progress on Lookout Point); Piaskowski Decl. ¶¶ 23, 25, 39 (Detroit structure built by 2028 “if” selected during NEPA process, Cougar built by 2022, Lookout Point on hold indefinitely). Furthermore, it is highly uncertain as to whether these structures will be successful based on failures at other high head dams. Connolly Decl. ¶ 28 (noting lack of success of passage structures at high head dams); Pl. Ex. 52 (article discussing study showing highly uncertain results at passage structures). Indeed, the trial passage structure attempted at Cougar dam in 2014 did not work.

Pl. Ex. 49. Pinning all hope of downstream passage on these highly uncertain structures that are years away from use will not prevent irreparable harm.

Equally disturbing is the Corps' reliance on hatchery fish to sustain the species for many more years. Fed. Def. Br. at 21; Piaskowski Decl. ¶¶ 7, 101. Plaintiffs' expert Mr. Schroeder explains the danger of relying on hatchery fish, and why their use does not sustain these species. Second Schroeder Decl. ¶ 8; *see also Nat'l Wildlife Fed'n*, 524 F.3d at 935 (noting that the longer a species relies on a hatchery program for its existence, the less likely it will recover); *Native Fish Soc'y v. Nat'l Marine Fisheries Serv.*, 992 F. Supp. 2d 1095, 1104-05 (D. Or. 2014) (discussing harm from hatchery fish to wild fish). Mr. Schroeder also soundly refutes Mr. Piaskowski's misleading claim that Upper Willamette Chinook have increased over the past ten years. Piaskowski Decl. ¶ 18; Second Schroeder Decl. ¶¶ 2-7. As discussed in Mr. Schroeder's declarations, Upper Willamette Chinook and steelhead have both declined during that time. Schroeder Decl. ¶¶ 12-13, 33-36; Second Schroeder Decl. ¶¶ 2, 6-7. These species cannot afford a long delay to reduce significant harm from the dams to reverse their declining trends.

The Corps has often rejected actions that would impair power production and recreation uses at Project dams, to the detriment of the threatened fish. Plaintiffs are seeking measures and a court order to ensure the Corps prioritizes needs of threatened salmon and steelhead over other uses of the Project dams while still allowing for flood control and protection of human health.

2. Downstream Passage and Water Temperature Measures

Plaintiffs have requested operational changes at several dams beginning this summer to assist with downriver juvenile migration and improve water temperatures during the Chinook rearing period. Importantly, the Corps' Chief Engineer never claims the measures are infeasible to implement or would interfere with flood control operations. *See Wells Decl.* ¶¶ 39-113. And

despite assertions that the changes to operations would be burdensome to implement, she admits that the Corps manages the dams on a day-to-day basis, continuously adjusting water management, and can deviate from normal operations when needed. *Id.* ¶¶ 13-14, 16, 31-32. Thus, the Corps is used to adjusting operations on a regular basis.

The key part of Plaintiffs' injunction request consists of deep drawdowns of Lookout Point, Cougar, and Detroit reservoirs in the fall, delayed spring refill of Cougar reservoir, spring spill at Lookout Point dam, and a spring drawdown of Fall Creek reservoir to assist with downstream juvenile migration. Pl. Ex. 44. The Corps claims these measures will not benefit the fish, Fed. Def. Br. at 19-23, but this opinion is based on flawed assumptions by the Corps' biologist and is contradicted by support of these measures from NMFS, ODFW, and Plaintiffs' experts. Notably, of the three measures the Corps states it has conducted to improve downstream passage, the two structures have failed while the *fall deep drawdowns* at Fall Creek dam *have been successful* at improving the Fall Creek Chinook population. Brice Decl. ¶ 5 (listing measures); Pl. Exs. 49, 50 at 3-4 (discussing failure of Cougar and Foster passage structures); Wells Decl. ¶ 91 & Piaskowski Decl. ¶ 23 (discussing Fall Creek drawdown and new self-sustaining Chinook population above dam). Plaintiffs are seeking similar fall drawdowns at Lookout Point, Detroit, and Cougar dams.

In fact, NMFS and ODFW have urged the Corps for years to consider these passage measures to gain immediate benefits for the fish while longer-term solutions are discussed. *See e.g.*, Pl. Exs. 4, 9, 11, 16 at 3, 21 at 3, 22, 28 at 2, 29, 46, 47, 51, 53-55. Plaintiffs' experts agree that these measures will help the species. Schroeder Decl. ¶¶ 46-63; Second Schroeder Decl. ¶¶ 13, 28; Johnson Decl. ¶¶ 48-68; Domingue Decl. ¶¶ 56-76.

The Corps' biologist provides a detailed description about why the drawdowns at Detroit,

Cougar, and Lookout Point will not benefit the fish, but he relies on faulty assumptions and constraints regarding Plaintiffs' request. First, Mr. Piaskowski claims that the drawdowns will not improve passage survival of fish based on modeling and a variety of assumptions about conditions. Piaskowski Decl. ¶¶ 28-30, 41-43, 47, 55-57, 62. As Mr. Piaskowski admits, however, passage of fish through regulating outlets rather than turbines results in better survival; and fish are more likely to find the regulating outlets if the reservoir level is drawn down close to the elevation of those outlets. Piaskowski Decl. ¶¶ 30-31; Johnson Decl. ¶¶ 20, 29, 39-42, 49; *see also* Pl. Exs. 24, 29 (stating that fish survival is higher through regulating outlets).

The key flaw with Mr. Piaskowski's reasoning is that he assumes the turbines would not be shut off as the reservoirs are being drawn down and thus many fish would still go through them. Piaskowski Decl. ¶¶ 28, 30, 45, 57, 76. Plaintiffs want to clarify that their requested relief to prioritize use of regulating outlets over turbines *during* the drawdowns means the Corps must turn the turbines off when it *begins* lowering the reservoirs for the drawdowns. Thus, turbines would be off during the lowering of the reservoir as well as for the month the reservoir remains near the deep drawdown elevation, which would increase passage survival during the entire drawdown process.

For Cougar dam, Mr. Piaskowski asserts that during a trial drawdown in December 2012, fish passage did not improve when the reservoir was at the very lowest elevation and thus Plaintiffs' request will not help the fish. Piaskowski Decl. ¶ 42. However, passage did improve over the course of the entire drawdown as more fish were directed to the regulating outlets, which supports Plaintiffs' proposal. *Id.* After that trial drawdown, NMFS continued to encourage the Corps to consider additional deep drawdowns at Cougar dam, particularly ones that started in summer such as Plaintiffs' request here, showing that the expert agency continued

to support that measure. Pl. Exs. 54, 56 at 5. Mr. Schroeder also questions the data and models used by Mr. Piaskowski to support his conclusions, such as his estimates of Dam Passage Efficiency (“DPE”), and NMFS has similarly contested the Corps’ modeling of DPE. Second Schroeder Decl. ¶¶ 22-23; Pl. Ex. 56.

Mr. Piaskowski next claims the drawdowns will harm downstream flows, TDG levels, and water temperatures. Piaskowski Decl. ¶¶ 33-36, 44, 59-61. This too is based on a faulty assumption that the drawdowns must begin at the same time the Corps normally begins to lower the reservoirs in the fall. Yet, the Corps’ Chief Engineer readily admits that starting the drawdowns earlier would alleviate much of the impact on downstream flows and TDG. Wells Decl. ¶¶ 50, 82. While that solution might not address the fall water temperature impacts below Detroit and Lookout Point dams, the Corps failed to account for Plaintiffs’ temperature control measures, which would send cooler water through the lower regulating outlets in late fall. Pl. Ex. 44 at 3. When an earlier and slower drawdown is combined with the temperature control measures, the drawdowns would have less effect on flows, TDG, and water temperature.

The bottom line is that, as Plaintiffs recognized in their request for relief, coordination with the experts at NMFS and ODFW is critical during implementation of these measures. Pl. Ex. 44 at 3-4. The expert agencies can weigh the tradeoffs between improved passage and effects to flows and water quality and determine the timing and rate of the drawdowns that will be most beneficial to the fish. Second Schroeder Decl. ¶¶ 13-18. NFMS has stated in the past that improved downstream passage is higher priority. Pl. Exs. 16 at 3, 57 at 5-6.

The Corps’ argument that measures at Cougar, Lookout Point, and Fall Creek dams to improve fry migration in spring will not be helpful due to poor rearing habitat downriver is also unsupported. Piaskowski Decl. ¶¶ 48-50, 71, 78-83. Plaintiffs’ expert explains the importance

of maintaining diversity in the species through different migration timing of juveniles, and that some fry would naturally migrate in spring. Second Schroeder Decl. ¶¶ 25-27; Schroeder Decl. ¶ 20. Mr. Schroeder also explains that rearing in reservoirs is not as beneficial as Mr. Piaskowski claims given the high level of predation and disease that occurs to juvenile salmon and steelhead in reservoirs, and that downriver migration of larger juveniles may not translate to higher productivity for the population. Second Schroeder Decl. ¶ 24; *see also* Schroeder Decl. ¶¶ 20, 28; Johnson Dec. ¶ 38 (discussing high predation, parasites, and disease in reservoirs). NMFS and ODFW have both recommended delayed refill at Cougar as an interim passage measure to allow for spring migration. Pl. Exs. 16 at 3, 54, 55.

Likewise, the Corps continues to resist outplanting fish above Green Peter dam to further efforts for downstream passage at that dam, a necessary element to obtain access to important spawning habitat in the South Santiam subbasin. Fed. Def. Br. at 25-26; Second Schroeder Decl. ¶ 21. NMFS has repeatedly recommended such action. Pl. Exs. 10 at 2-3, 30, 31. In contrast to the Corps' assertion that none of Plaintiffs' measures will help Upper Willamette steelhead, the proposed measures at Detroit and Green Peter dams are a necessary step for restoring access to steelhead spawning habitat in the North and South Santiam subbasins, which is critical for recovery of this species. Second Schroeder Decl. ¶¶ 19-21.

With regard to the spring drawdown at Fall Creek dam, Plaintiffs recognize the need to account for the adult collection facility below the dam. Piaskowski Decl. ¶ 70. Therefore, Plaintiffs adjust their request such that the drawdown would occur to an elevation of 728 feet and would remain near that elevation from April 1 to June 30, with the regulating outlets open as much as possible during that time to allow for egress of fish.

Finally, Federal Defendants claim that Plaintiffs' water temperature control measures will

not benefit fish below Detroit and Lookout Point dams. Fed. Def. Br. at 26-27. At Detroit, Plaintiffs' drawdown request would allow the lower regulating outlet to be used during the fall and early winter rearing period when water temperatures are regularly higher than desired. Wells Decl. ¶ 103; Pl. Ex. 36 at 110. In fact, the Corps used the lower regulating outlet at Detroit for water temperature control in 2015 when the reservoir level was very low due to drought. Well Decl. ¶ 101. At Lookout Point dam, the Corps has never tested whether use of the deeper regulating outlet in fall would lower downstream temperatures that routinely far exceed standards for salmon. See Pl. Br. at 19-20. Given the importance of the Middle Fork Willamette Chinook population, and its dire status, any potential to improve conditions is worth testing. NMFS recently again recommended use of regulating outlets for interim temperature control operations. Pl. Ex. 58 at 2.

Overall, Plaintiffs have provided ample evidence that their downstream passage and water temperature measures will likely benefit the species and they have refuted the faulty assumptions relied upon by Federal Defendants. "Given that population declines have occurred under status quo operations at the Corps dams and recent trends suggest further declines, action is needed now to improve current conditions and protect wild populations . . . years of additional delay before implementing downstream passage measures will cause unacceptable and unnecessary harm to the species." Second Schroeder Decl. ¶ 28.

3. Other Requested Measures

Federal Defendants offer a variety of objections to Plaintiffs' other requests: re-running models of other interim downstream passage measures, strict compliance with maintenance schedules and emergency protocols, and better coordination with NMFS and ODFW. Fed. Def. Br. at 26-27. These measures will benefit the species.

First, Plaintiffs have requested that the additional passage measures be re-modeled because they could provide even better downstream migration for juvenile fish, and the Corps improperly assumed it could not conduct them due to impacts to power production, recreation, or water supply. As Plaintiffs discussed above, the Corps has authority to reduce these uses for the benefit of threatened fish and thus must re-consider implementation of other passage measures that could provide an even greater benefit to the fish. *See* Schroeder Decl. ¶ 47 (noting run-of-river operation would likely be more beneficial).

Second, evidence in the record shows that the Corps frequently deviates from maintenance schedules and emergency protocols approved by NMFS, which impairs water quality conditions for salmon and steelhead. Pl. Exs. 34 at 27, 39, 58 at 2. Moreover, relations between the Corps and NMFS or ODFW about management of Willamette dams has often been strained, with NMFS and ODFW expressing concern about the Corps' lack of actions to change operations for the benefit of Upper Willamette salmon and steelhead, particularly with regard to downstream fish passage. Pl. Exs. 4, 5, 6, 7, 9, 16 at 3, 51. This evidence demonstrates the need for a Court order to reduce the Corps' deviation from the expert agencies' recommendations.

In sum, Federal Defendants offer no alternatives for improving downstream passage or water temperatures other than continuing to delay actions until unproven structures are potentially built far in the future. Plaintiffs' measures may not ensure recovery of the species, but Federal Defendants' proposed path forward will almost surely lead to their extinction.

CONCLUSION

For the foregoing reasons, Plaintiffs respectfully request the Court grant their motion for preliminary injunction and order their requested relief.

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Respectfully submitted,

/s/Lauren M. Rule

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Exhibits to Plaintiffs' Reply in Support of Motion for Preliminary Injunction

The following exhibits are public records from federal or state agencies or their websites.

- Exhibit 49: Memo from Stephanie Burchfield to Army Corps of Engineers re: review of draft report on preliminary findings at Cougar portable floating fish collector (Nov. 28, 2014).
- Exhibit 50: WATER Fish Facility Design Work Group meeting minutes (March 5, 2019).
- Exhibit 51: NMFS memo re: WATER Manager's Forum Topics (Sept. 11, 2017).
- Exhibit 52: Columbia Basin Bulletin article on fish collector study (Aug. 24, 2018).
- Exhibit 53: Memo from Stephanie Burchfield to Army Corps of Engineers re: review of Draft EA for Lookout Point Fish Passage Enhancement (Nov. 25, 2016).
- Exhibit 54: Memo from Stephanie Burchfield to Army Corps of Engineers re: Willamette Project Operating Plan, Water Year 2014 (April 16, 2014).
- Exhibit 55: Memo from ODFW to Army Corps of Engineers re: review of measures in COP analysis (March 14, 2014).
- Exhibit 56: Memo from Stephanie Burchfield to Army Corps of Engineers re: review of Fish Benefits Workbook (March 7, 2014).
- Exhibit 57: Letter and attachment from NMFS to Army Corps of Engineers re: 2012 Willamette Basin Annual Operations Report (Aug. 21, 2013).
- Exhibit 58: Memo from Stephanie Burchfield to Army Corps of Engineers re: 2016 Willamette Basin Annual Water Quality Report (April 28, 2017).